TEXAS INSTRUMENTS

Microprocessor Development Systems

Customer Support Guide

Read This First
Warranty and Registration
Information Enclosed

Microprocessor Development Systems Customer Support Guide

July 1995

TEXAS INSTRUMENTS

IMPORTANT NOTICE

Texas Instruments (TI) reserves the right to make changes to its products or to discontinue any semiconductor product or service without notice, and advises its customers to obtain the latest version of relevant information to verify, before placing orders, that the information being relied on is current.

TI warrants performance of its semiconductor products and related software to the specifications applicable at the time of sale in accordance with TI's standard warranty. Testing and other quality control techniques are utilized to the extent TI deems necessary to support this warranty. Specific testing of all parameters of each device is not necessarily performed, except those mandated by government requirements.

Certain applications using semiconductor products may involve potential risks of death, personal injury, or severe property or environmental damage ("Critical Applications").

TI SEMICONDUCTOR PRODUCTS ARE NOT DESIGNED, INTENDED, AUTHORIZED, OR WARRANTED TO BE SUITABLE FOR USE IN LIFE-SUPPORT APPLICATIONS, DEVICES OR SYSTEMS OR OTHER CRITICAL APPLICATIONS.

Inclusion of TI products in such applications is understood to be fully at the risk of the customer. Use of TI products in such applications requires the written approval of an appropriate TI officer. Questions concerning potential risk applications should be directed to TI through a local SC sales office.

In order to minimize risks associated with the customer's applications, adequate design and operating safeguards should be provided by the customer to minimize inherent or procedural hazards.

TI assumes no liability for applications assistance, customer product design, software performance, or infringement of patents or services described herein. Nor does TI warrant or represent that any license, either express or implied, is granted under any patent right, copyright, mask work right, or other intellectual property right of TI covering or relating to any combination, machine, or process in which such semiconductor products or services might be or are used.

Registration Information

English — Only registered users are entitled to receive software updates, which are free of charge for the first year. To register, you must complete and return the Warranty Registration Card enclosed with TI products. And to ensure that you continue to receive update information, please notify Texas Instruments of any change of address by following the instructions in this manual.

Deutsch — Nur registrierte Benutzter haben Anspruch auf kostenlosen Software update während des ersten Jahres. Zur Registrierung müssen Sie die Warranty Registration Card, die der von Texas Instruments gelieferten Software beiliegt, ausfüllen. Bitte informieren Sie uns auch über eventuelle Änderungen Ihrer Adresse, damit wir Sie über weitere Updates informieren können. Bitte lesen Sie dazu die Instruktionen in diesem Manual.

Español — Solo recibirán actualizaciones de software aquellos usuarios que hayan sido registrados, estas actualizaciones serán gratuitas durante el primer año. Para registrarse, deberá llenar y enviar la tarjeta de registro de garantía que se incluye con los productos Texas Instruments. Para asegurarse de que continúe recibiendo la información actualizada, por favor comunique a Texas Instruments cualquier cambio de dirección siguiendo las instrucciones de este manual.

Francais — Seul les utilisateurs enregistrés ont le droit de recevoir les mises à jour qui sont gratuites pour la première année. Pour s'enregistrer, ils doivent remplir et retourner la "Carte d' enregistrement" inclus avec les produits TI. Afin d' assurer cette mise à jour, veuiller informer Texas Instruments de tous changements d' adresse en suivant les instructions de ce manuel.

Italiano — Solo gli utenti registrati possono ricevere aggiornamenti di Software gratuiti per il primo anno. Per essere registrati, dovete compilare e rendere la cartolina di garanzia che riceverete con i prodotti T.I. Per essere sicuri di continuare a ricevere gli aggiornamenti, preghiamo comunicare a T.I. qualsiasi cambiamento di indirizzo seguendo le istruzioni del manuale incluso.

Nederlands — Enkel geregistreerde gebruikers mogen software updates ontvangen. Deze updates zi jn het eerste jaar na registratie gratis inbegrepen in de softwarelicentie. Om geregistreerd te worden dient U de "Warranty Registration Card" in te vullen en terug te sturen naar Texas Instruments. Om er zeker van te zi jn dat U wel degelijk alle updates ontvangt, vragen wij U Texas Instruments op de hoogte te houden van alle adreswijzigingen. De instructies zi jn opgenomen in de bijgevoegde handleiding.

Svenska — Endast registrerade användare är ber ättigade att emotta uppdatering av mjukvara, vilken är kostnadsfri under det första året. För registrering bör Du ifylla samt returnera det bifogade "Warranty Registration"–kortet som Du fått tillsammans med mjukvaran. För att försäkra Dig om fortsatt uppdaterings–information, vänligen meddela Texas Instruments om ev. adressförändring enligt instruktionen i manualen.

WARNING

This equipment is intended for use in a laboratory test environment only. It generates, uses, and can radiate radio frequency energy and has not been tested for compliance with the limits of computing devices pursuant to subpart J of part 15 of FCC rules, which are designed to provide reasonable protection against radio frequency interference. Operation of this equipment in other environments may cause interference with radio communications, in which case the user at his own expense will be required to take whatever measures may be required to correct this interference.

Customer Support Guide

Thank you for selecting Texas Instruments Microprocessor Development Systems for your application. Please take a few moments to read this Customer Support Guide. It describes the range of services available to you as a TI customer.
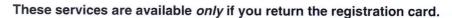
Registration

So that we can provide the best product support and to keep you informed of new developments, please register each product that you purchase. To register, simply fill out and mail the registration card enclosed with this product.

If you received this Customer Support Guide as part of a product update, you are already registered and do not need to register again.

As a TI-registered customer, you are entitled to receive these services:

- ❑ Software updates available directly from TI
- ❑ Timely notification of availability of product upgrades
- ❑ Factory repair and/or exchange of products
- ❑ Telephone assistance from Texas Instruments Technical Support Hotlines and Electronic Bulletin Boards

⟹ **These services are available *only* if you return the registration card.**

Some third-party products distributed with TI Microprocessor Development Systems include separate registration cards addressed directly to the third party. Please fill out and return these cards directly to the address specified to insure that you receive full support for these products.

In the United States, simply mail the card to the address on the registration card. For any other country, place the card in an envelope and address it to the appropriate regional office listed in Table 1.

Table 1. Software Registration Addresses

United States, Mexico, and Canada	Asia and Pacific Region
Texas Instruments Microprocessor Development, M/S 730 P.O. Box 1443 Houston, Texas 77251-1443	Texas Instruments Singapore (Pte) Ltd. Asia Pacific Region 990 Bendemeer Road Singapore 1233
Europe, Middle East, and Africa	**Far East**
Texas Instruments France ASP Registration Center, MS-54 BP5 06271 Villeneuve-Loubet Cedex France	Texas Instruments Japan Ltd. Ms Shibaura Building 9F 4-13-23 Shibaura Minato-ku, Tokyo Japan 108

Changing Your Address

To ensure that you continue to receive update information, it is very important that you notify Texas Instruments of any change of address and that you keep your registration up to date. To notify TI of a change of address, send a letter to the appropriate software registration office listed in Table 1. Reference your registration number and provide the following information:

- Former user name
- New user name
- Former address and telephone number
- New address and telephone number

- Product name
- Part number
- Date of original purchase

Use shipping addresses only; we cannot ship to P.O. boxes.

Software Updates and Upgrades

TI is constantly striving to improve the quality of its Development Systems products. As a result, updates are periodically released, incorporating product enhancements, refinements, and bug fixes.

When significant new features are added to a product, an upgrade may be released. Upgrades are available for purchase by registered customers.

To find out about updates and upgrades, send in your registration card!

All registered users are entitled to receive any product updates that become available within the first year after purchase free of charge. After the first year, for some products, a subscription fee or update fee is required to receive additional updates. If this is the case, you will be notified by letter at the address you included on your registration card. In many cases, updates also include upgraded functionality as well as maintenance items. In other cases, a separate product upgrade must be purchased.

Many updates are sent automatically when a new release is available. Therefore, it is important to notify TI of any change of address, contact information, etc., to insure that you continue to receive the updates.

Some minor maintenance releases to correct specific problems are not sent automatically, but are available to registered users on request through our hotline support services listed on page 5.

Software updates are intended as a replacement for your original media and program. You may retain one copy of the original program for archive purposes only. An update does not entitle you to use the software on more systems than provided for in your original license agreement.

Many Canadian customers prefer to have updates shipped via their U.S. Export Forwarder. In this case, please provide that information on the registration card.

Hardware Updates

Hardware updates are available through our Factory Repair Centers. See Factory Repair instructions on page 10 for details on how to obtain hardware updates.

Customer Support Services

TI Product Information Center

The Texas Instruments semiconductor Product Information Center can assist you with technical and nontechnical inquiries and services. A staff of professionals will listen to your needs, answer questions, order documentation, or direct you to the appropriate department. You can contact the Product Information Center at (214) 664–5580, from 8:30 a.m. to 5:30 p.m., CST, from Tuesday through Friday, and from 9:30 a.m. to 5:30 p.m., CST, on Monday. Other sources of product information are as follows:

TI Product Information

Worldwide Web site   http://www.ti.com

USA Product Information

TI Literature Response Center USA	(800) 477-8924
TMS320 Hotline	(713) 274-2320
TMS370/TMS7000 Hotline	(713) 274-2370
TMS380 Hotline	(713) 274-2380
TMS320AV110 Hotline	(214) 997-5762
TX486SLC, TX486DLC Hotline	(214) 997-5199
TMS320 Hotline Fax	(713) 274-2324
TMS370/TMS7000 Hotline Fax	(713) 274-4203
TMS380 Hotline Fax	(713) 274-4027
TMS320AV110 Hotline Fax	(214) 997-5763
TX486SLC, TX486DLC Hotline Fax	(214) 997-6418
TMS320 BBS	(713) 274-2323
TMS340 BBS	(713) 274-2417
TMS370/TMS7000 BBS	(713) 274-3700
TMS380 BBS	(713) 274-2317
TMS320 email address	4389750@mcimail.com
TMS320C8x email address	C8x@msg.ti.com
TMS320 Internet BBS via anonymous ftp	to ftp.ti.com (192.94.94.33)

European Product Information

European Product Information Center (EPIC)

Multi-Language Support	
EPIC Hotline	+ 33 1 30 70 11 69
EPIC Fax	+ 33 1 30 70 10 32
EPIC BBS via modem	+ 33 1 30 70 11 99
EPIC email address	*epic@msg.ti.com

TI Asia Product Information

Literature Response Center	+ 852 2 956 7288
Literature Response Center Fax	+ 852 2 956 2200
Taiwan DSP Hotline	+ 886 2 377 1450
Taiwan DSP Hotline Fax	+ 886 2 377 2718
Taiwan DSP BBS	+ 886 2 376 2592
Taiwan DSP Internet BBS via anonymous ftp	
	to (140.111.1.10) in directory/vendors/TI/tms320bbs
Korea DSP Hotline	+ 82 2 551 2804
Korea DSP Hotline Fax	+ 82 2 551 2828
Korea DSP BBS	+ 82 2 551 2914
Hong Kong DSP Hotline	+ 852 2956 7268
Hong Kong DSP Hotline Fax	+ 852 2956 1002
Singapore DSP Hotline Fax	+ 65 390 7179

TI Japan Product Information

Product Information Center:	0120-80-0026 (in Japan)
	or call 03-3457-0972 or (INTL) 813-3457-0972
Product Information Center Fax:	0120-81-0036 (in Japan)
	or call 03-3457-1259 or (INTL) 813-3457-1259
DSP Hotline:	03–3769-8735 (INTL) 813-3769-8735
DSP Hotline Fax:	03–3457-7071 (INTL) 813-3457-7071
DSP BBS via NIFTY-Serve:	Type "Go TIASP"

System Repair

USA Factory Repair	(713) 274-2285
European Factory Repair	+ 33 1 93 22 25 40

Technical Training

Success today means meeting competitive standards of quality, variety, customization, convenience, and timeliness. No longer is productivity the single measure of success. At Texas Instruments, your success in the design process is foremost on our minds.

Technical advancement and stiff competition are constantly driving the need to shorten the cycle time from design concept to market availability. State-of-the-art skills and practical application techniques are required to implement ideas quickly with a high degree of quality and value.

To help you meet these challenges, TI offers you the latest training and consultation on advanced technologies. Lectures led by skilled instructors and hands-on lab exercises using the latest TI development tools accelerate your learning experience. Real-world examples help you apply TI's advanced technology to your system. You will discover more productive ways of gaining that competitive edge.

For technical training information or registration in the U.S., call 1 (800) 336–5236, extension 3904, or (214) 917–3894. To reach the Europe Customer Training Fax Helpline, call + 49 81 61 80 40 10.

Precautions and Safety Considerations

❏ Do not connect products to a power source until the installation procedure as described in the product user's guide is complete.

❏ Turn the power off before installing or removing circuit boards or target cables.

❏ Do not block air inlets or air exhaust ports; this may cause overheating and damage to electronic components.

❏ When target connectors are not in use, they must be protected to prevent contact with metal objects. Contact causes short circuits and possible damage to the unit. Ensure that the power is off when you plug in the target connector.

❏ Take appropriate antistatic measures to protect printed circuit boards and components from electrostatic discharge during storage and handling.

❏ For continued protection against fire hazard, always replace fuses with those of the same type and rating.

Service and Warranty

For most products, a repair service is available, either on a fixed-price repair or an exchange basis. For service on a product, please contact the appropriate factory repair center and ask for a Return Material Authorization (RMA) number before you send in your product for repair or exchange. In the United States and Canada, call (713) 274–2285, 8:30 a.m. to 5:30 p.m., CST. In other locations, contact your local sales office. Refer to the *Addresses and Telephone Numbers* section on page 14 for the list of appropriate addresses and telephone numbers.

Most products are repaired on a fixed-price repair basis, provided that the returned product is repairable. Fixed repair prices do not include the cost of repairing items damaged through accident, alteration, improper installation, misuse, or unauthorized repair. Certain factory upgrades may also incur an extra charge.

You will be notified if the cost of repair will exceed the standard fixed-price rates.

You may request expedited exchange service at an extra cost, subject to product inventory. The expedited exchange product will be shipped within one (1) working day from receipt of the returned product.

The product is returned to the customer, F.O.B., by the Factory Repair Center. Transportation and insurance charges are added to the customer invoice.

Warranty

The terms of your limited warranty are specified below. Please keep the warranty statement for future reference.

Texas Instruments Incorporated
Semiconductor Group
Microprocessor Development Systems Warranty Statement

Warranties: The following are in lieu of all warranties, expressed, implied, or statutory, including but not limited to, any implied warranty of merchantability or fitness for a particular purpose and of any other warranty obligation on the part of the seller.

Seller, except as otherwise hereinafter provided, warrants the goods against faulty workmanship or the use of defective materials, and that such goods will conform to mutually agreed upon written specifications, drawings, and other descriptions for a period set forth in the schedule below. Seller warrants that at the time of delivery, Seller has title to the goods free and clear of any and all liens and encumbrances. These warranties are the only warranties made by Seller and can be amended only by a written instrument signed by an officer of Seller.

Seller's warranties shall be for the following periods from date of shipment:

Development systems:	ninety (90) days
Printed circuit board assemblies:	one (1) year
Accessories, cables	ninety (90) days
Software media:	ninety (90) days

Continued use or possession of the goods after expiration of the applicable warranty period stated above shall be conclusive evidence that the warranty is fulfilled to the full satisfaction of Buyer.

Seller makes **no warranty** as to goods not manufactured by Seller, except that Seller to the extent permitted by Seller's contract with its supplier and under applicable law, shall assign to Buyer any rights Seller may have under any warranty of the supplier thereof. Seller does not warrant that experimental or developmental goods will conform to specifications.

Seller's warranties as hereinabove set forth shall not be enlarged, diminished or affected by, and no obligation or liability shall arise or grow out of, Seller's rendering of technical advice or service in connection with Buyer's order of the goods furnished hereunder.

TI does not warrant that Software programs will be free from error or will meet Buyer's specific requirements. Buyer assumes complete responsibility for decisions made or actions taken based on information obtained using the Program. Any statements made by Seller concerning the utility of the Program are not to be construed as expressed or implied warranties.

Warranty on Repaired or Exchanged Products

TI guarantees workmanship and new or refurbished parts in repaired or exchange products for thirty (30) days from date of shipment or for the remainder of the original warranty period, whichever is longer.

Factory Repair and Exchange Instructions

The Factory Repair Center in Houston, Texas (and other locations worldwide), offers warranty repair or exchange at no charge (except shipping) and nonwarranty repair at standard labor and material rates for all current Development Systems products. Repairs automatically result in updating of the system to the latest revision.

You may request either the return of the same serial-numbered product or exchange for a refurbished product. If you do not ask for return of the specific serial-numbered unit, TI reserves the option to repair your returned unit or to exchange it for an equivalent unit.

Exchanged products will be replaced with refurbished units that meet TI's workmanship standards for refurbished products.

Normal Warranty Exchange or Repair

TI will repair or exchange products *free of charge,* provided:

1) You notify Texas Instruments of the problem within the applicable warranty period.

2) Factory Repair Center inspection shows problem(s) are not caused by accident, alteration, improper installation, improper testing, misuse, or unauthorized repair.

Texas Instruments does not accept responsibility for customer-installed changes, including, but not limited to, customer-generated software in programmable devices. Texas Instruments also reserves the right to refuse to repair and to return at customer expense any product that cannot be tested to Texas Instruments specifications because of customer modifications.

Nonwarranty Exchange or Repair

Nonwarranty factory repair or exchange is available on all current repairable Development Systems products. TI accepts products as repairable when the repair cost is not greater than the cost of replacement. If a product is not repairable, you will be notified that the unit is not repairable, and it will be returned to you.

System Updates

TI's standard practice is to update all Development Systems products returned for repair to the current production revision for that unit. Extra charges may apply for some product upgrades.

Shipping Instructions

For any factory repair or upgrade, follow these steps:

1) Have all of the following information ready before calling the Repair Center:

   - Customer name, contact name, and telephone number
   - Shipping address—Texas Instruments ships by UPS or its equivalent and insures for the minimum amount, unless you specify otherwise
   - "Bill To" address, if applicable
   - Purchase order number (if applicable)
   - Proof of date of purchase (required for warranty repair)
   - Part, model, and serial numbers
   - Description of symptoms (please be as specific as possible)
   - Decision on whether you want the same serial-numbered unit returned to you

2) In the United States and Canada only, contact the Factory Repair Center at (713) 274–2285, 8:30 a.m. to 5:30 p.m., CST, to obtain a Return Material Authorization (RMA). You will be asked to provide the information above.

   TI cannot be responsible for any product returned without prior authorization.

   If you are outside of the United States or Canada, contact your local sales office for instructions. Refer to the *Addresses and Telephone Numbers* section, page 14, for a list of offices.

3) Pack the unit carefully and securely, preferably with the original packing material in the original shipping box. If the original packing material is not available, be sure to use antistatic packing material where needed to prevent ESD damage to board assemblies, components, and target cables. *Clearly mark the RMA number on the outside of the shipping box.* Texas Instruments cannot accept returned equipment without this number.

4) Keep a copy of the waybill, in case tracing of your shipment is necessary.

5) Return your product, freight prepaid, F.O.B., to the appropriate Repair Center. In the United States and Canada, use this address:

   Texas Instruments Incorporated
   Factory Repair Center, M/S 730
   12203 Southwest Freeway
   Stafford, Texas 77477

   Outside of the United States and Canada, your local contact will provide *shipping instructions.*

Software Licenses

Software Programs included with Development Systems products are distributed subject to the terms of the license agreement included with the program package, unless a separate written agreement is executed.

The TI program license agreement is reproduced on the following pages for your reference. Note that some Development Systems products include third-party software programs distributed under license by TI, under the terms of the specific agreement packaged with them.

The license terms provide you with the right to use the program on a single host-computer system. You may move these programs from machine to machine, provided that you do not violate the copyright by making unauthorized copies and/or installing the program on more than one host computer at a time.

Programs provided on floppy disk media are typically limited to single-user computer systems. Use of these programs on multiple-user host systems (systems with more than one user terminal or remote log-on capability) requires the payment of additional fees. All other programs may be used on either single- or multiple-user systems, including those with remote log-on capability.

Generally, you must acquire a separate copy of the software for each node of a network of workstations that will be executing the software. However, you do not need to acquire a separate copy for any nodes that are diskless. Note that the workstation must be truly diskless; a workstation with a disk must have a separate license, even if it loads the software off of a server over a network.

Some of the software contained in this package may be identified as "Runtime Libraries" or "Application Software" in the user documentation. The terms of the license allow you to modify this software and otherwise derive programs from it. When this software is supplied in source code format, the source code versions are subject to the terms of the agreement, but the object code versions are not.

Certain products may contain software identified as "operating system" or "device driver" software. The terms of the license allow use of this software for applications development. However, a separate license must be obtained from TI to distribute copies.

License Agreement

This document is displayed for you to read prior to using the software and documentation. By using the software and documentation, you agree to abide by the following provisions. If you choose not to agree with these provisions, promptly return the unopened package to the place you obtained it for a refund.

1) **License**—Texas Instruments Incorporated ("TI"), grants you a license to use the software program and documentation in this package ("Licensed Materials") on a single-user computer in the case of software on floppy disc media or a single computer in the case of all other software. You may not use the Licensed Materials on more than one computer at the same time or otherwise network the Licensed Materials. Use of the Licensed Materials on a network requires payment of additional fees.

2) **Restrictions**—You may not reverse-assemble or reverse-compile the Licensed Materials provided in object code format. You may not sublicense, transfer, assign, rent, or lease the Licensed Materials or this Agreement without written permission from TI.

3) **Copyright**—The Licensed Materials are copyrighted. Accordingly, you may either make one copy of the Licensed Materials for backup and/or archival purposes or copy the Licensed Materials to another medium and keep the original Licensed Materials for backup and/or archival purposes. Additionally, if this package contains multiple versions of the Licensed Materials, then you may use the Licensed Materials in only one version on a single computer. In no event may you use two copies of the Licensed Materials at the same time. You must reproduce the copyright notice on each copy or partial copy of the software.

4) a) **Runtime and Applications Software**—You may create modified or derivative programs of software identified as Runtime Libraries or Applications Software, which in source code form remain subject to this Agreement, but object code versions of such derivative programs are not subject to this Agreement.

    b) **Operating System and Device Driver Software**—Certain products may contain operating system and device driver software. The license granted is for applications development only. A separate license must be obtained from TI to distribute copies.

5) **Warranty**—TI warrants the media to be free from defects in material and workmanship and that the software will substantially conform to the related documentation for a period of ninety (90) days after the date of your purchase. TI does not warrant that the Licensed Materials will be free from error or will meet your specific requirements.

6) **Remedies**—If you find defects in the media or that the software does not conform to the enclosed documentation, you may return the Licensed Materials along with the purchase receipt, postage prepaid, to the following address within the warranty period and receive a refund.

    Texas Instruments Incorporated
    Microprocessor Development Systems, MS 730
    12203 Southwest Freeway
    Stafford, Texas 77477

7) **Limitations—*TI makes no warranty or condition, either expressed or implied, including but not limited to any implied warranties of merchantability and fitness for a particular purpose, regarding the licensed materials.***

    Neither TI nor any applicable licensor will be liable for any incidental or consequential damages, including but not limited to lost profits.

    Because some states do not allow the exclusion or limitation of incidental or consequential damages or limitation on how long an implied warranty lasts, the above limitations or exclusions may not apply to you.

8) **Export Control**—The re-export of United States origin software and documentation is subject to the Export Administration Act of 1969 as amended. Compliance with such regulations is your responsibility.

Addresses and Telephone Numbers

TI Worldwide Sales Offices

U. S. Locations

ALABAMA

Huntsville:
4970 Corporate Drive
Huntsville, AL 35805-6230
Tel: (205) 430-0114

ARIZONA

Phoenix:
2525 E. Camelback, Suite 500
Phoenix, AZ 85016
Tel: (602) 244-7800

CALIFORNIA

Irvine:
1920 Main Street, Suite 900
Irvine, CA 92714
Tel: (714) 660-1200

San Diego:
5625 Ruffin Road, Suite 100
San Diego, CA 92123
Tel: (619) 278-9600

San Jose:
2825 North First Street, Suite 200
San Jose, CA 95134
Tel: (408) 894-9000

Woodland Hills:
21550 Oxnard Street, Suite 700
Woodland Hills, CA 91367
Tel: (818) 704-8100

COLORADO

Englewood:
5613 DTC Parkway, Suite 500
Englewood, CO 80111
Tel: (303) 488-9300

CONNECTICUT

Wallingford:
1062 Barnes Road
Suite 303
Wallingford, CT 06492
Tel: (203) 265-9157

FLORIDA

Altamonte Springs:
2301 Lucien Way
Suite 185
Maitland, FL 32751

Fort Lauderdale:
2950 N. W. 62nd Street
Suite 100
Deerfield, FL 33309
Tel: (305) 973-8502

Tampa:
4803 George Road, Suite 390
Tampa, FL 33634-6234
Tel: (813) 885-7588

GEORGIA

Norcross:
3091 Governor's Lake Drive
Suite 100
Norcross, GA 30071
Tel: (404) 662-7967

ILLINOIS

Arlington Heights:
1300 E. Woodfield
Schaumberg, IL 60005
Tel: (708) 640-2925

INDIANA

Carmel:
550 Congressional Drive
Suite 100
Carmel, IN 46032
Tel: (317) 573-6400

Fort Wayne:
103 Airport North Office Park
Fort Wayne, IN 48625
Tel: (219) 489-4697

KANSAS

Overland Park:
7300 College Blvd.
Lighton Plaza, Suite 150
Overland Park, KS 66210
Tel: (913) 451-4511

MARYLAND

Columbia:
9861 Broken Land Parkway
Columbia, MD 21046
Tel: (410) 312-7900

MASSACHUSETTS

Waltham:
Bay Colony Corporate Center
950 Winter Street, Suite 2800
Waltham, MA 02154
Tel: (617) 895-9100

MICHIGAN

Novi:
39555 Orchard Hill Place
Suite 350
Novi, MI 48375
Tel: (810) 305-5700

MINNESOTA

Eden Prairie:
11000 W. 78th Street, Suite 100
Eden Prairie, MN 55344
Tel: (612) 828-9300

MISSOURI

St. Louis:
12412 Powerscourt Drive, Suite 125
St. Louis, MO 63131
Tel: (314) 821-8400

NEW JERSEY

Edison:
399 Thornal Street
Edison, NJ 08837-2236
Tel: (908) 906-0033

NEW MEXICO

Albuquerque:
3916 Juan Tabo Place,. N.E.
Suite 50
Albuquerque, NM 87111
Tel: (505) 345-2555

TI Worldwide Sales Offices (Continued)

U. S. Locations (Concluded)

NEW YORK

East Syracuse:
6365 Collamer Drive
East Syracuse, NY 13057
Tel: (315) 463-9291

Fishkill:
300 Westage Business Ctr.
Suite 250
Fishkill, NY 12524
Tel: (914) 897-2900

Melville:
48 South Service Road, Suite 100
Melville, NY 11747
Tel: (516) 454-6601

Pittsford:
2851 Clover Street
Pittsford, NY 14534
Tel: (716) 385-6770

NORTH CAROLINA

Charlotte:
8 Woodlawn Green, Suite 100
Charlotte, NC 28217
Tel: (704) 527-0930

Raleigh:
3200 Beachleaf Court, Suite 206
Raleigh, NC 27604
Tel: (919) 876-2725

OHIO

Independence:
6450 Rockside Woods So.
Suite 100
Independence, OH 44131
Tel: (216) 382-2149

Beavercreek:
4035 Colonel Glenn Hwy., Suite 310
Beavercreek, OH 45431-1601
Tel: (513) 427-6236

OREGON

Beaverton:
6700 S.W. 105th Street, Suite 110
Beaverton, OR 97005
Tel: (503) 643-6758

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Austin, TX 78759
Tel: (512) 250-6769

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Dallas, TX 75251
Tel: (214) 917-1264

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Commerce Park, Suite 360
Houston, TX 77074
Tel: (713) 778-6592

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Midland, TX 79711-0448
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Salt Lake City, UT 54106
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TI Worldwide Sales Offices (Continued)

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Tokyo, Japan 108
Tel: 03-769-8700

Nissho-Iwai Bldg. 5F
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Osaka, Japan 541
Tel: 06-204-1881

Dai-ni Toyota Bldg. Nishi-kan 7F
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Kanazawa Oyama-cho Daiichi
Seimei Bldg. 6F
3-10 Oyama-cho, Kanazawa-shi
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TI Worldwide Sales Offices (Concluded)

International Locations (Concluded)

JAPAN (CONTINUED)

Matsumoto Showa Bldg. 6F
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Nagano, Japan 390
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Daiichi Olympic Tachikawa Bldg. 6F
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